

claims 1-81 (cancelled)

Claim 82 (new): A pharmaceutical composition that induces tolerance to an antigen, said composition comprising a non-tumor lymphoid cell or non-tumor hematopoietic cell suitable for introduction into an individual and a pharmaceutically acceptable excipient, wherein said cell contains a nucleic acid sequence encoding a fusion protein operably linked to a promoter, wherein said nucleic acid sequence comprises a viral vector or portion thereof,

said fusion protein comprising (1) an immunoglobulin heavy chain or light chain; and (2) a polypeptide containing at least one epitope of the antigen;

wherein upon introduction to the individual said composition induces tolerance to the antigen in the individual.

Claim 83 (new): The pharmaceutical composition of claim 82, wherein said viral vector is selected from the group consisting of retroviral vector, and baculovirus vector.

Claim 84 (new): The pharmaceutical composition of claim 82, wherein there are two or more copies of the nucleic acid sequence.

Claim 85 (new): The pharmaceutical composition of claim 82, wherein the immunoglobulin is an IgG.

Claim 86 (new): The pharmaceutical composition of claim 82, wherein said fusion protein comprises an N-terminal variable region of said heavy chain and has said polypeptide inserted adjacent to a first framework region of said N-terminal variable region.

Claim 87 (new): The pharmaceutical composition of claim 82, wherein the cell is syngeneic with the individual.

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Claim 88 (new): The pharmaceutical composition of claim 82, wherein the cell is a bone marrow cell.

Claim 89 (new): The pharmaceutical composition of claim 82, wherein the cell is a B-cell.